EO-2
980468

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply To
Attn Of: ECO-088

Ref: 96-079-AFS

February 26, 1999

Robert Castaneda, Forest Supervisor
Winema National Forest
2819 Dahlia
Klamath Falls, OR 97601
Attn: Pelican Butte DEIS

RE: **Pelican Butte Ski Area Master Development Plan Draft Environmental Impact Statement**

Dear Mr. Castaneda:

The Environmental Protection Agency has received the **Pelican Butte Ski Area Master Development Plan Draft Environmental Impact Statement** for review in accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act. The draft EIS analyzes six alternatives for the development of Pelican Butte as either a winter or a year-round recreation area. Pelican Butte is located 28 miles northwest of Klamath Falls, OR, 54 miles east of Medford, OR, and 25 miles south of Crater Lake National Park. The draft EIS identifies Alternative 2 as being the Pelican Butte Corporations preferred alternative and Alternative 6 as being the USDA-Forest Service's (USFS) preferred alternative.

Based on our review, we have rated the Forest Services's preferred alternative EO-2 (Environmental Objections - Insufficient Information). This rating and a summary of our comments will be published in the *Federal Register*. A summary of the EPA rating system is enclosed for your reference. We believe that the other action alternatives (2,3,4, and 5) are unacceptable because they do not comply with the Standards and Guidelines in the Northwest Forest Plan (NFP).

In general, we find the draft EIS does not contain sufficient information to adequately address the fundamental purpose of the National Environmental Policy Act (NEPA) to "insure that environmental information is available to public officials and citizens before decisions are made and actions are taken" (40 CFR 1500.1(b)). The information provided in the EIS does not provide the reviewer a complete understanding of the environmental consequences associated with the development of the Pelican Butte Ski Area. NEPA states that "NEPA procedures must insure that environmental information is available...to citizens before decisions are made and

before actions are taken" and that "public scrutiny is essential to this process" (40 CFR 1500.1(b)). As noted in the attached detailed comments, the draft EIS is lacking important information needed for future federal decisions related to air quality, groundwater, stormwater, and endangered species. It is also lacking specific information on the potential impacts of the project pertinent to these same environmental issues.

Our primary concerns, which are related to the potential impact of the project on water and air quality, late successional reserves (LSRs), wildlife and indirect impacts are highlighted below.

1) We are concerned about the potential impacts associated with surface and groundwater quality. The draft EIS does not provide baseline water quality data for the project area and fails to provide the information needed to support many of the conclusions made regarding potential impacts to water quality. We are also concerned about the potential impacts the proposed on-site septic systems and drainfields would have on water quality within the project area and beyond. Information provided in the draft EIS suggests that there is a high risk of failure associated with high usage and peak day loading rates of the system. The EIS should provide further analysis of the potential for failure and describe the magnitude of the impacts associated with the failure. The EIS should also discuss the direct, indirect, short and long-term impacts associated with such failures.

2) We are concerned about the potential impacts to air quality. There is limited air monitoring data for Pelican Butte and we are concerned that data used for the dispersion modeling may not be representative of the conditions at Pelican Butte. We are concerned about the potential impacts the proposed use of diesel generators and woodsmoke would have on air quality within the project and surrounding areas, as well as the potential impacts the proposed action may have on Class I PSD areas in the vicinity.

3) We are concerned about the potential impacts the proposed action will have on wildlife populations and habitats. For all action alternatives, there is the potential for both a northern spotted owl and Pacific bald eagle "take" and to our knowledge, there has been no formal Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) regarding this matter. This appears to be inconsistent with the NEPA regs (40 CFR 1502.25 (a))

4) We are concerned about the potential impacts the proposed action would have on the functionality of Late Successional Reserve (LSR) 227. All action alternatives with the possible exception of alternative 6 would impact the functionality of the LSR and thereby are inconsistent with the Standards and Guidelines of the Northwest Forest Plan (NFP).

5) We are concerneded that the ski resort is likely to lead to development in the area and thereby indirectly impair the LSR, and air and water quality even more. These indirect

impacts should be evaluated in the EIS, as required by 40 CFR 1502.16 (b).

Thank you for the opportunity to review this draft EIS. For further information, call Anna Maria Muñoz at(206) 553-0266 or feel free to call me at (206) 553-8574.

Sincerely,

Richard B. Parkin, Chief
Geographic Implementation Unit

Enclosures

EPA Comments on the Pelican Butte Ski Area Master Development Plan DEIS

Water Quality

The project area is located within portions of the Rock Creek, Pelican Butte, and Fourmile Creek watersheds. Upper Klamath Lake lies outside of the project area, but surface water in the Rock and Fourmile Creek watersheds discharges directly or indirectly into the lake. The Pelican Butte watershed is designated as a Tier 2 Key watershed under the Northwest Forest Plan (NFP). Tier 2 watersheds are designated for their importance as sources of high quality waters. We are concerned about the impacts the proposed action will have on water quality within the project area, analysis area, and surrounding areas.

Overall, we find the information on current water quality and the potential impacts to water quality to be lacking and vague. The draft EIS does not provide baseline surface water data for the analysis area. The document makes references to water quality studies that have been performed by various consultants and agencies, but does not include any of this data in the draft EIS. The EIS should provide a quantitative and qualitative discussion on the current surface water quality and provide a table of the designated uses and applicable criteria for these waterbodies. These applicable criteria include temperature, dissolved oxygen, turbidity, pH, bacteria, total dissolved solids, and toxic substances. These criteria should be tracked thru and discussed for all alternatives

The draft EIS does not provide baseline groundwater data for the analysis area. The EIS needs to provide a better characterization of the groundwater hydrology. The conceptual model used for groundwater characterization was based on information from a single test well site. We recommend that an analysis consisting of several well sets be used to model the ground water hydrology so as to gain a better understanding of the groundwater flow within the project area. It is possible that effluent from the proposed drainfields and stormwater runoff could enter the groundwater and be transported elsewhere. Therefore, it is pertinent that the EIS provide information on how and where the groundwater flows.

The draft EIS states that in all action alternatives, proposed septic drainfields would not be sufficiently sized to accommodate peak day loading rates due primarily to the high rock content of the soil. Development of these drainfields will be contingent upon receiving a Water Pollution Control Facility permit from the Oregon Department of Environmental Quality (ODEQ). The EIS should discuss the status of the permit process, identify and discuss any further studies or analysis that must been undertaken during the permitting process and describe the types and magnitude of pollution that can be expected if or when these drainfields were to fail. The USFS should analyze the depth of soil freezing within the project area. This information is pertinent for determining the feasibility of the proposed drainfields. The discharge from these septic drainfields could affect the groundwater in this area. Therefore it is pertinent that the proponent(s) of the proposed action implement strict mitigation and

monitoring measures that will reduce the risk of water contamination.

We are also concerned with the impacts associated with the potential failure of the on-site septic systems. The cumulative impacts section of the draft EIS indicates that increased development in the vicinity of the project area is very likely. These developments would result in an increased use of on-site septic systems within the area. This increased use could lead to system failure and result in groundwater contamination, excessive nutrient loading to local wetlands and eutrophication of lakes, such as Upper Klamath Lake. Currently, Klamath Lake is classified as a hypertrophic system. Water quality in the lake is often poor, with elevated pH levels, wide fluctuations in dissolved oxygen and carbon dioxide levels, and high water temperatures. Upper Klamath Lake is an Oregon listed 303(d) waterbody for chlorophyll A, dissolved oxygen for cool water aquatic life, and pH. Any potential increases in these parameters are considered to be significant, since they already exceed the criteria for water quality, and should be addressed in the EIS. We believe the EIS should provide a better analysis on the likeliness of an on-site septic system failure occurring, stating the maximum level of usage the septic system could handle without risking failure and also stating the level of usage that is expected for the proposed action. The draft EIS should describe how such a failure would affect the quality of groundwater and surface water. This discussion should be specific in nature and not merely state that there would be adverse affects and/or that water quality would be lowered. The EIS should also discuss the potential for increased nutrient loading to local wetlands and eutrophication of lakes as it relates to the proper functioning of these systems.

Other areas of concern include the suitability of the water attained from the wells for serving as a potable water source. The EIS should include a discussion of the analyses to make this determination. There is a possibility that pumping water from the big well will cause a drawdown that could result in sucking the drainfield discharge into the well water, and thus hindering the suitability of the water attained from the wells as serving a potable water source. The EIS should discuss this issue in detail, providing the analyses and data to support their conclusions. The EIS should also address the potential groundwater impacts that are related to the underground storage tanks for diesel fuel. The EIS should characterize the locations of these storage tanks, discuss how they will be monitored for potential leakages, and describe what the affects to groundwater will be in the event that leakage or spillage were to occur.

The descriptions provided in the Affected Environment portion of the Watersheds section do not support the conclusions that are made in the Environmental Consequences portion of this section. The majority of the environmental consequences are characterized as being "minimal" or "negligible", however, there is not enough information in the document to support these conclusion. The EIS should include information to support these conclusion and provide a more detailed discussion on how these conclusions were made.

We believe that many of the analyses contained in the Mitigation and Monitoring section

should be conducted as soon as possible and included in the EIS. These analyses include preparation of an SPCCP, Stormwater Management Plan, Hydrological Characterization Report, Ground Water Management Plan, and a Water Conservation Plan. The EIS should also include the information required for a Water Pollution Control Facility permit. We view these analyses as providing pertinent information for determining and analyzing the environmental impacts of the proposed action. The draft EIS describes monitoring and mitigation measures that "could" and "should" be implemented for the proposed action. The EIS should clearly state what mitigation measures *will* be implemented.

AIR QUALITY

We are concerned with the potential impacts the proposed action will have on air quality within the project area and beyond. The draft EIS states that the air quality monitoring data near Pelican Butte is limited. Without this baseline information, it will be difficult to monitor the changes in air quality due to implementation of the proposed action. The atmospheric transport and dispersion conditions for the analysis area are based on meteorological data for Kingsley Field in Klamath, OR. We are concerned about how representative this data is of the meteorological conditions and dispersion modeling for Pelican Butte. ISCST3 was used for dispersion modeling for all pollutants. Resort and off-resort development induced by the project can increase particulates, carbon monoxide, and other toxic air contaminant concentrations from burning fuelwood. Wood stoves and fireplaces in mountainous regions together with temperature inversions can lead to serious degradation of air quality. WYNDvalley is one air quality model currently being used in many locations for predicting future air quality under stagnant conditions. We recommend WYNDvalley be used for particulate modeling.

There was no discussion on a General Conformity determination under Section 176(c) of the Clean Air Act. This is required under 40 CFR 93(b). This discussion should be included in the EIS.

One of our main air quality concerns is related to the potential air impacts from the use of diesel-powered generators as a power source for the ski area. The draft EIS states that "the generators in Alternatives 3, 5, and 6 would be 'cleaner' than those in Alternatives 2 and 4" The EIS should discuss why these "cleaner" generators are not used for all the action alternatives. The EIS should also discuss why diesel generators, versus natural gas generators were chosen as the power source for the ski area. These generators may qualify as major new stationary emissions sources, and may require a PSD permit from ODEQ prior to installation. The analyses required for this permit should be conducted and the results should be discussed in the EIS so that the reviewer can adequately assess the potential impacts related to these diesel generators. We believe that the Mitigation Measures (III-302) described for reducing the levels of No_x emissions should be implemented for all action alternatives.

We are also concerned with the potential impacts the proposed action will have on the air quality of Crater Lake National Park and the Mountain Lakes Wilderness, both of which are designated Class I areas for Prevention of Significant Deterioration (PSD). These areas are in the vicinity of the assessment area and are likely to be impacted by the proposed action. There is no monitoring data for the Mountain Lakes Wilderness and therefore it will be difficult to determine how the proposed action will affect air quality in this area. For Crater Lake National Park, the screening-level visibility impairment analysis suggests that all action alternatives could potentially impact the visibility at Crater Lake National Park. The Mitigation and Monitoring for this section includes an action to "Conduct additional visibility impairment analysis and compare its results to actual visibility measurements to better ascertain potential impacts in visibility at Crater Lake National Park". This should be done and the results of these analyses should be included in the EIS.

Late Successional Reserves

All action alternatives would result in the reduction of Late Successional Reserve (LSR) habitat to some varying degree. LSR 227 lies within the boundaries of the project area and encompasses 2,613 acres and comprises 50% of the total acreage within the project area. There has been recent debate about the interpretation of the Standards and Guidelines for Multiple-Use Activities Other Than Silviculture that apply to Late-Successional Reserves and Managed Late-Successional Areas as it relates to the development of new facilities. This debate centers around the direction provided in the Introduction of the Standards and Guidelines (S&Gs) (ROD C-16) which allows for new developments in LSRs if the adverse effects of the new development can be minimized and mitigated to a condition neutral or beneficial to the creation and maintenance of late-successional habitat. However, the Developments Section (C-17) of the S&Gs states that new developments will be "planned to have the least possible impacts on Late-Successional Reserves". A preliminary interpretation of the S&Gs was released by the Regional Ecosystems Office on February 2, 1999. As of the date of this letter, that interpretation is not final; and EPA believes the intent of the S&G is that such impacts should be insignificant, if not negligible.

Based on a preliminary interpretation of the Standards and Guidelines for Multiple-Use Activities Other Than Silviculture that apply to Late-Successional Reserves and Managed Late-Successional Areas, new developments may proceed in LSRs if the development would have no adverse affect on the LSR. The letter dated February 2, 1999 in which the preliminary interpretation is given, goes on to state that, "Determination of compliance with these NFP standards are to be evaluated on a case by case basis. These determinations need to consider the ability of the affected LSR(s) to function as intended (ROD, B-4 through B-9, C-11) and to serve as part of the larger LSR network at the watershed, province, and ecosystem scales. The determination also needs to consider the appropriate short- and long-term time frames, as well as cumulative effects." In an effort to aid those involved with new developments, the draft interpretation letter also provides specific questions that must be considered when interpreting

this S&G and includes a flow chart to aid developers in determining whether or not the proposed new development in an LSR would be consistent with the S&Gs. We recommend that the USFS address this interpretation in the EIS. For each alternative, the EIS should address the questions and aforementioned flow chart to demonstrate whether or not the alternative complies with the most recent interpretation of the S&Gs, and the degree to which each deviates from the overall intent of minimizing and mitigating effects to a condition neutral or beneficial to the LSR.

We are concerned that some, if not all, of the action alternatives would not meet this interpretation of the guidelines. The draft EIS states that "In all alternatives, with the probable exception of Alternative 4, LSR functionality would be maintained within the project area." (III-207). Therefore, we believe that acceptance of Alternative 4 would violate the S&Gs for LSRs based on the preliminary interpretation of these guidelines. The draft EIS goes on to state the "Functionality would be measurably hindered within the project area in Alternatives 2, 3, and especially 5, through fragmentation of late seral habitat blocks and effects on connectivity." (III-207). Therefore, we question that these alternative (2,3, and 5) meet the Standards and Guidelines. The impacts to functionality certainly are not negligible or insignificant in that they would not be neutral or beneficial to the LSR. They would impair it and thus fail the S&Gs. Therefore, we consider these alternative to be unacceptable because they are inconsistent with standards and guidelines set forth in the NFP and they fail to adhere to environmental policies set forth in that plan.

We are also concerned with the cumulative impacts affecting LSR 227. Future actions slated to affect this LSR include the Cold Springs/Switchback, Spencer Creek Analysis Area, and the Seldom-Varney timber harvest projects. These actions, as currently planned, would affect 2,271 acres of LSR 227. The EIS should provide a more in-depth analysis of the cumulative impacts these actions and the proposed action would have on the LSR. This analysis should include maps that show the location of all current and future actions located within the LSR. This will allow the reviewer to gain a better sense of how these actions will affect the spatial connectivity and functionality of the LSR. The EIS should also provide maps that show the location of the 8 habitat blocks that comprise LSR 227 in relation to the proposed alternatives. The draft EIS makes reference to how each alternative will impact specific habitat blocks, however, it would aid the reviewer if maps of these blocks were included on Figures III-13 thru III-17.

WILDLIFE

The proposed action could have significant impacts on the wildlife species within the project area. We are concerned about the level of impact this action will have on a wide number of species including Forest, state and federally listed sensitive, threatened, and endangered species, management indicator species, and Northwest Forest Plan ROD species. The proposed action would result in a reduction of habitat and increased human disturbance within the project

area. For many species, including the Northern Goshawk, the Pileated Woodpecker, herptiles, and others, there have either been no formal surveys conducted to assess current population levels and trends within the analysis area, or those studies conducted were incomplete. We believe that more information is needed to fully assess the impacts the proposed action would have on wildlife within the analysis area. We recommend that further investigations and surveys be undertaken for those species where there is little or lacking information regarding population status and trends. Without this information, it will be difficult to adequately address the impacts the proposed action will have on the species and determine what appropriate mitigation and monitoring measures should be implemented. This information should be included in the EIS.

Of particular interest, are the potential impacts the proposed action will have on the northern spotted owl and the pacific bald eagle, which are federally listed species under the Endangered Species Act. The draft EIS indicates that a "take" is likely to occur for both species, however the current Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) regarding this matter has been on an "informal" basis. We would like to encourage the USFS to participate in a "formal" consultation with USFWS earlier in the project, rather than waiting until after the draft EIS comment period is over. NEPA (40 CFR 1500.2 (c)) requires that "Federal agencies...to the fullest extent possible..[i]ntegrate the requirements of NEPA with other planning and environmental review procedures required by law...*so that all such procedures run concurrently rather than consecutively* [italics added]." Subsequent sections detail that federal agencies shall, "to the fullest extent possible,...prepare *draft environmental impact statements* concurrently and integrated with environmental impact analyses and related surveys and studies required by...*Endangered Species Act* [italics added]" (40 CFR 1502.5 (a)). Therefore, we believe that the ESA consultation process should be described in the EIS and the Biological Assessment and Biological Opinion included in the EIS. Currently, our concerns regarding the northern spotted owl and Pacific bald eagle are provided below in a more detailed manner.

NORTHERN SPOTTED OWL

The project area contains 1,662 acres of nesting, roosting, and foraging habitat (NRF) for the northern spotted owl. According to the draft EIS (III-107), the project area "has not been surveyed to protocol in the last three years". Parts of the project area have been surveyed every year since 1991 using "other techniques than the formal survey protocol". The EIS should describe what parts of the project area have been surveyed for the years 1991 to present. This information should include number of acres surveyed per year and maps depicting the areas surveyed during each year. The EIS should also provide a clear, concise description of the "other techniques" used to survey the northern spotted owl within the project area and discuss how these techniques compare to the formal survey protocol. This discussion should illustrate the similarities and differences between these two types of surveys and should include a discussion on whether or not the survey techniques that have been used since 1991 can be

considered to be comparable to the formal survey protocol in terms of data quality and quantity.

Late Successional Reserve (LSR) lands provide the most NRF habitat within the project area. Most of this NRF habitat is located between 5,000-6,5000 feet in elevation. The draft EIS states that "logging has occurred in much of the NRF habitat below 5,500 feet (III-109). Recent timber harvest has also resulted in one owl territory (territory 2387) lacking sufficient NRF habitat. The draft EIS sites a study by Wagner (1994) that indicates the northern spotted owl population in southern Oregon is gradually declining. Information provided by USDA (1995) states that this decline is expected to level out in a few decades when the lands within LSRs grow closer to full productivity. All action alternatives in the draft EIS would result in a decrease in the amount and connectivity of LSRs within the project area. The EIS should discuss the cumulative impacts the proposed action and other current and future actions will have on the quantity and quality of NRF habitat as well as the impacts these actions will have on the northern spotted owl population in this area.

We are also concerned about the indirect impacts the proposed action will have on the northern spotted owl. Reduction of late successional habitat and habitat connectivity could result in an increase in the local great horned and barred owl populations. These species compete with, and in the case of the great horned owl, predate on, the northern spotted owl. Increases in these species within the project area could result in a decline in the northern spotted owl population due to increased displacement and predation. Increases in the barred owl population within the project area could could also result in an increase in hybridization between it and the northern spotted owl, altering the genes of the northern spotted owl population. The EIS should discuss these indirect affects in more detail providing information on the current status of great horned and barred owl populations within the project area. The EIS should also discuss the likeliness of increased interaction between the two species within the project and analysis area.

PACIFIC BALD EAGLES

We are concerned about the potential impacts the proposed action will have on the Pacific Bald Eagle. Currently, an area closure is in effect from January 1 -August 31 on the east side of Pelican Butte. This closure limits motorized vehicle use of approximately 1,690 acres during the bald eagle nesting season. The EIS should discuss how these closures are conducted and enforced (gates, sign age, etc.) and provide information on how many of these roads will continue to be closed during this time period once the proposed action is implemented. The draft EIS cites that there would be increased disturbances in these areas from snowmobilers and groomers in the winter and that public access would be limited to specific parts of the project area. The EIS should describe what areas are likely to have increased use and how this increased use will affect the bald eagle populations in that local area.

Mitigation measures proposed for the project include meeting all requirements and

standards for protection of the threatened, endangered, and sensitive species. The EIS should provide a more in-depth discussion of what these standard are and how they will be met since most of the impacts associated with the implementation of the proposed action would likely result in increased disturbances within one-half mile of active bald eagle nests and within the Rock Creek winter roost. The EIS should provide information on the location of active nests in relation to each action alternative, and provide quantitative data on how the proposed action will likely affect the population numbers within the project and analysis area.

Indirect Effects

The most significant environmental effects of building the proposed action may be the indirect rather than the direct effects. The Council on Environmental Quality's (CEQ) regulations for implementing the National Environmental Policy Act state that the environmental consequences section in an EIS should include: "Indirect effects and their significance (§1502.16(b))." Indirect effects are defined as: "...caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (§1508.9(b))." The CEQ regulations also indicate that the draft EIS should include the "means to mitigate adverse environmental effects (§1502.16(h))." This provision applies to indirect effects. Induced residential and commercial growth could adversely affect air quality, water quality, fish resources, wetlands, and other important resources. The EIS should conduct analyses and provide information on how this potential induced growth would affect these natural resources.

Summary Paragraph Form

ERP Number D-AFS-L65319-OR **TITLE** PELICAN BUTTE SKI AREA MASTER DEVELOPMENT PLAN, IMPLEMENTATION, WINEMA NATIONAL

RATING EO-2 COMMENTLTR 2/26/1999 ◯No Comment ◯Disinvest

Name of EPA Official Responsible For Review Of Project (Principal Reviewer)

MUNOZ

Summary

EPA's primary concerns are that the EIS contains insufficient information to support conclusions on impacts to water quality, there are potential ambient air quality and visibility impacts commonly associated with the direct and indirect impacts from ski resorts. The alternatives do not comply with the Standards and Guidelines of the NW Forest Plan and the reduction in wildlife habitat especially that at the northern spotted owl. The EIS should provide more information that show what the impacts will be to water, air, and wildlife habitat.

EPA expressed environmental concerns about insufficient information to predict impacts to water quality and air quality, especially visibility. Reductions in habitat, especially for the spotted owl, do not comply with the NW Forest Plan.

Approved For Publication

(Initials of OFA Approving Official)

Note: Transmit 2 copies to MIU